

# Closing the Loop: Exploring Integrated Waste Management and Resource Conservation

California Integrated Waste Management Board  
Public Education and Assistance Section  
8800 Cal Center Drive, Mail Station #5  
Sacramento, CA 95826  
(916) 255-2385



No charge to California educators who participate in a workshop. 2000. 650 p.

Completely revised and updated in 2000, *Closing the Loop: Exploring Integrated Waste Management and Resource Conservation* applies K-6 level project-based learning to examine issues related to integrated waste management and resource conservation. In the 4-6 module, twenty-seven lessons are organized within four units entitled Managing and Conserving Natural Resources; Reducing, Reusing, and Recycling; Composting; and Managing Household Hazardous Waste Properly. Extensive appendices include vocabulary lists, an overview of integrated waste management, an overview of the handling specific materials, information to establish composting systems, websites, and jurisdiction information.

## REPORT CARD

Overall Grade	A
General Content	A
Presentation	A-
Pedagogy	A
Teacher Usability	A
Integrated Waste	A

DISCIPLINE	EMPHASIS	0	1	2	3
Science					
History/Social Science					
Health					
Mathematics					
Visual/Performing Arts					
Language Arts					
Industrial/Vocational Ed.					
Foreign Language					

## COMMENTS

### General Content

"All information (concepts, objectives, etc.) are readily available."

"This is a comprehensive waste management resource that is child-centered, teacher friendly, and research based."

### Presentation

Draft edition without camera-ready format was reviewed for this project.

### Pedagogy

"Good literature emphasis."

"Lessons note connection to specific content standards and frameworks."

### Teacher Usability

"Readable and understandable for a new teacher. Extensive but concise background information - very useable!"

"Teacher friendly with a more useable format than the former edition."

"Lots of material, including literature, is needed to implement the curriculum."

"Lessons are very detailed and lengthy - seems overwhelming."

# A Child's Place in the Environment

California Department of Education  
Publications Division, Sales Office  
P.O. Box 271  
Sacramento, CA 95812  
(800) 995-4099

\$65.00. 1996. 538 p.

Olga Clymire  
Lake County Office of Education  
1152 South Main Street  
Lakeport, CA 95453  
(707) 263-7249



*Achieving a Sustainable Community* is the sixth grade unit within *A Child's Place in the Environment* series. Designed as an interdisciplinary and thematic environmental education curriculum, *Achieving a Sustainable Community* encourages students to become aware of the characteristics common to natural and human communities, appreciate the significance of achieving sustainability, and act accordingly within their community. Twenty in-depth sequential lessons integrate science, history-social science, and English-language arts; of these, several deal with waste reduction.

## REPORT CARD

Overall Grade	A-
General Content	A
Presentation	A-
Pedagogy	A
Teacher Usability	A-
Integrated Waste	A

DISCIPLINE	EMPHASIS	0	1	2	3
Science					
History/Social Science					
Health					
Mathematics					
Visual/Performing Arts					
Language Arts					
Industrial/Vocational Ed.					
Foreign Language					

## COMMENTS

### General Content

"This binder is part of a larger curriculum."  
"Literature selections are an integral part of the program."

"This is a superb effort by many teachers and 'environmentalists' to involve the student in acquiring the knowledge to become an informed citizen. The literature tie in is excellent."

### Pedagogy

"Active learning is promoted through the lessons." "

### Teacher Usability

"Very useable and teacher friendly (preparation time and materials required, checklists, etc.)."

"Many materials are needed to be gathered or purchased by the teacher. If literature selections are not available, you'd lose an integral part of the curriculum."

"Can be used as a unit or sections can be pulled out."

### Specific Content

"High quality, but few lessons focus on integrated waste management issues."

# Windows on Waste

Ohio Department of Natural Resources  
Public Information Center  
1952 Belcher Drive  
Columbus, OH 43224  
(614) 265-6333



Free to Ohio educators participating in workshop.  
\$30.00 for all others. 1999. 345 p.

Designed for the 4-6 grade level, *Windows on Waste: a Solid Waste Curriculum Supplement* presents interdisciplinary activities arranged according to fourteen environmental studies concepts. These concepts include land use and community resources, market system economics, solid waste analysis, government and citizenship, and the business of recycling. Each section of the curriculum is accompanied by an explanation of relevant environmental concerns, essential vocabulary, teacher background information, and activity summaries.

## REPORT CARD

Overall Grade	A-
General Content	A
Presentation	A-
Pedagogy	A
Teacher Usability	A-
Integrated Waste	A

DISCIPLINE	EMPHASIS	0	1	2	3
Science					
History/Social Science					
Health					
Mathematics					
Visual/Performing Arts					
Language Arts					
Industrial/Vocational Ed.					
Foreign Language					

## COMMENTS

### General Content

"This is a classroom based program that examines waste issues."  
"Wonderful!"

### Presentation

Draft edition was reviewed for this project.  
"The sidebar is an easy planning guide with step by step directions."

### Pedagogy

"Assessment is specifically included for each lesson."  
"Assessment is specific to Ohio's proficiency tests."

### Teacher Usability

"Lots of great activities are offered. Student handout pages are very well done (and motivational)."  
"Teacher friendly! Brand new teachers could readily use this without feeling overwhelmed." Everything is right at their fingertips."

### Specific Content

"An excellent overview of waste."

# A Child's Place in the Environment

California Department of Education  
Publications Division, Sales Office  
P.O. Box 271  
Sacramento, CA 95812  
(800) 995-4099

Olga Clymire  
Lake County Office of Education  
1152 South Main Street  
Lakeport, CA 95453  
(707) 263-7249

\$55.00. 1997. 370 p.



*Conserving Natural Resources* is the fifth grade unit within *A Child's Place in the Environment* series. Designed as an interdisciplinary and thematic environmental education curriculum, *Conserving Natural Resources* encourages students to become aware of the importance of natural resources, understand the human use of such resources, and act responsibly by practicing waste prevention and conservation. Twenty in-depth sequential lessons integrate science, history-social science, and English-language arts.

## REPORT CARD

Overall Grade	A-
General Content	A
Presentation	A-
Pedagogy	A
Teacher Usability	A-
Integrated Waste	A-

DISCIPLINE	EMPHASIS	0	1	2	3
Science					
History/Social Science					
Health					
Mathematics					
Visual/Performing Arts					
Language Arts					
Industrial/Vocational Ed.					
Foreign Language					

## COMMENTS

### General Content

"Can be used as a complete curriculum or supplemental unit to reinforce subject areas."

### Presentation

"Student handouts are well organized and thought provoking."

### Pedagogy

"Activities promote student learning with emphasis on language arts and science."

"Offers 'extensions' to extend learning (homework activities, class projects)."

"This curriculum integrates state frameworks from many disciplines."

### Teacher Usability

"Very teacher friendly."

"Lots of materials needed to implement the curriculum."

### Specific Content

"Focuses on natural resources and our impact upon them. It is not intended as an integrated waste management curriculum, but students who go through it would have a greater awareness of their role in both the [waste] problem and solution."

# Pathways to a Sustainable Future

The Chewonki Foundation  
485 Chewonki Neck Road  
Wiscasset, ME 04578  
(207) 882-7323



\$19.95. 1999. 198 p.

Recently revised, *Pathways to a Sustainable Future, A Curriculum Guide for Schools Exploring Waste Management Issues* presents several routes of exploration, from awareness pathways ("What is the waste problem?") to assessment pathways ("How are we doing?") to action pathways ("How can we have an impact on the waste problem?"). Designed for K-12 classrooms, the material offers background information, activities, and support material on composting, hazardous waste, recycling and reuse, source reduction, landfilling, and incineration.

## REPORT CARD

Overall Grade	A-
General Content	A
Presentation	A-
Pedagogy	A
Teacher Usability	B+
Integrated Waste	A

DISCIPLINE	EMPHASIS	0	1	2	3
Science					
History/Social Science					
Health					
Mathematics					
Visual/Performing Arts					
Language Arts					
Industrial/Vocational Ed.					
Foreign Language					

## COMMENTS

### General Content

"A well developed curriculum with long-term activities for students."

### Presentation

Draft edition was reviewed for compendium. Final edition is well designed.

### Pedagogy

"The curriculum guides students while allowing them to explore concepts and build new knowledge."

### Teacher Usability

"Materials are very teacher friendly. All information is accessible and easy to understand. Level index is helpful for grade level planning."

"Needs to provide a time framework and list of disciplines emphasized."

### Specific Content

"Developed in Maine, but the issues are pertinent to all students."

# Environmental Protection Native American Lands

Center for Indian Community Development  
Humboldt State University  
Arcata, CA 95521  
(707) 826-3711



\$25.00. 1996. 290 p.

*Environmental Protection Native American Lands: A Cultural Approach to Integrated Environmental Studies* is designed to cultivate a sense of place by studying the relationship between human activity and the land. Fifty-two lessons for grades 1-12 build upon Native American traditions and beliefs, specifically reflecting the cultures of the Hupa, Karuk, and Yurok people of northern California. Integrated waste management issues, including solid waste and pollution, and waste management practices, including recycling, composting, and vermiculture are explored throughout the curriculum.

## REPORT CARD

<b>Overall Grade</b>	<b>A-</b>
<b>General Content</b>	<b>A</b>
<b>Presentation</b>	<b>A-</b>
<b>Pedagogy</b>	<b>A-</b>
<b>Teacher Usability</b>	<b>B+</b>
<b>Integrated Waste</b>	<b>A</b>

<b>DISCIPLINE</b>	<b>EMPHASIS</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
Science		—			
History/Social Science		—			
Health		—			
Mathematics		—			
Visual/Performing Arts		—			
Language Arts		—			
Industrial/Vocational Ed.		—			
Foreign (Native) Language		—			

## COMMENTS

### General Content

"An outstanding source of non-western cultural views of respect, responsibility, and stewardship of the environment."  
"This is a very relevant curriculum guide for Native Americans."

### Presentation

"Excellent art work, photographs, and cultural connections."  
"Wonderful imagery."

### Pedagogy

"This is not meant for regular classroom use. It requires a change of view in order to see the world not as a 'resource.' It sponsors a lifetime commitment towards living lightly and in harmony, while putting technology into perspective."  
"Science and math connections are strong."

### Teacher Usability

"Lessons are written for a broad range of ages (K-12)."

### Specific Content

Integrated waste management issues are dealt with culturally and spiritually.

# Understanding Garbage and Our Environment

McGraw-Hill, Inc.  
Customer Services  
P.O. Box 545  
Blacklick, OH 43004-0545  
(800) 722-4726



\$19.95. 1999. 306 p.

*Understanding Garbage and Our Environment* presents eight comprehensive lessons to help middle-school students explore solid waste management issues. These issues include the characteristics of solid waste, health concerns, source reduction, resource recovery, and waste disposal methods. Within each lesson are a number of activities, plus teacher background information, notes, student background information and instructions, and "The Garbage Gazette" student readings.

## REPORT CARD

<b>Overall Grade</b>	<b>A-</b>
<b>General Content</b>	<b>A</b>
<b>Presentation</b>	<b>B+</b>
<b>Pedagogy</b>	<b>A-</b>
<b>Teacher Usability</b>	<b>A-</b>
<b>Integrated Waste</b>	<b>A-</b>

<b>DISCIPLINE</b>	<b>EMPHASIS</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
Science					
History/Social Science					
Health					
Mathematics					
Visual/Performing Arts					
Language Arts					
Industrial/Vocational Ed.					
Foreign Language					

## COMMENTS

### General Content

"Good breadth. Addresses health issues which are often overlooked."

### Presentation

"The layout and teacher notes make this 'an easy to access' choice."

### Pedagogy

"May be beyond the reach of many fourth and fifth graders. It is designed for middle school."

"Cross-curricular integration is strong."

### Teacher Usability

"The 'Garbage Gazettes' used for additional student information are a student friendly resource."

"Some lessons require costly materials."

### Specific Content

All major integrated waste management issues are explored in *Understanding Garbage*.

# Trash Conflicts

Educators for Social Responsibility  
23 Garden Street  
Cambridge, MA 02138  
(617) 492-1764



\$28.00. 1993. 246 p.

*Trash Conflicts, A Science and Social Studies Curriculum on the Ethics of Disposal* integrates middle school level science and social science to examine the impact of waste production and ethics of disposal. Twenty-seven activities explore trash and hazardous waste from the perspective of environmental safety and social justice, concluding with student readings and action projects. Resource directory and bibliography are also included.

## REPORT CARD

Overall Grade	A-
General Content	A-
Presentation	B+
Pedagogy	A-
Teacher Usability	B+
Integrated Waste	A-

DISCIPLINE	EMPHASIS	0	1	2	3
Science					
History/Social Science					
Health					
Mathematics					
Visual/Performing Arts					
Language Arts					
Industrial/Vocational Ed.					
Foreign Language					

## COMMENTS

### General Content

"*Trash Conflicts* presents several case studies. Disposal issues are explored on a personal level."

"Good resource for debate material."

### Presentation

Graphics need improvement.

### Pedagogy

"Critical thinking skills are emphasized."

"Activities may not be appropriate at the fourth and fifth grade levels."

"Lots of means for role playing."

"Effectively tackles some challenging issues (siting of landfills, environmental justice, etc.) and is sensitive to cultural and economic diversities."

### Teacher Usability

Lessons are written for the sixth through eighth grade level.



# An Ounce of Prevention

The Dow Chemical Company  
An Ounce of Prevention  
P.O. Box 1206  
Midland, MI 48641-9823  
(517) 636-7155



Free to educators of grades 6-9. 1997. 88 p.

Produced by the National Science Teachers Association and Dow Chemical Company, *An Ounce of Prevention* is a middle level science curriculum that focuses on source reduction and the need to conserve resources. Sequentially arranged lessons are organized in six sections, providing background information on garbage, the handling of garbage, the issue of packaging, hazardous waste, life cycle analyses (environmental effects of products and processes from a cradle-to-grave perspective), and the application of critical thinking skills to resolve an environmental dilemma.

## REPORT CARD

<b>Overall Grade</b>	<b>A-</b>
<b>General Content</b>	<b>A-</b>
<b>Presentation</b>	<b>B+</b>
<b>Pedagogy</b>	<b>A-</b>
<b>Teacher Usability</b>	<b>A</b>
<b>Integrated Waste</b>	<b>A-</b>

<b>DISCIPLINE</b>	<b>EMPHASIS</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
Science					
History/Social Science					
Health					
Mathematics					
Visual/Performing Arts					
Language Arts					
Industrial/Vocational Ed.					
Foreign Language					

## COMMENTS

### General Content

"Well designed supplemental activities including one very effective life cycle analysis lesson using the 'Life of a Hamburger' poster (included)."

### Pedagogy

"Applications to real life situations could be developed further."

"Supports teacher-directed learning."

"Incorporates systems thinking into the lessons."

"The activities are presented in a step by step fashion ending with a decision-making project."

### Teacher Usability

"Handouts used in each activity need to be better referenced."

"Teacher notes provide useful information."

### Specific Content

"Covers important ideas in depth; focuses on source reduction."

# Action for a Cleaner Tomorrow

South Carolina Department of Health and Environmental Control  
2600 Bull Street  
Columbia, SC 29201  
(800) 768-7348



No charge. 1998. 569 p.

Revised in 1998, *Action for a Cleaner Tomorrow* (K-8 edition) addresses numerous environmental issues, including the impact of litter and garbage, and the effects of recycling, composting, and conserving natural resources on both a regional and global level. Interdisciplinary lessons are divided by grade levels (K-1, 2-3, 4-5, and 6-8) and are supported by an extensive resource section covering background information, glossary, and list of books and videos.

## REPORT CARD

Overall Grade	B+
General Content	A-
Presentation	B+
Pedagogy	A-
Teacher Usability	A-
Integrated Waste	A-

DISCIPLINE	EMPHASIS	0	1	2	3
Science					
History/Social Science					
Health					
Mathematics					
Visual/Performing Arts					
Language Arts					
Industrial/Vocational Ed.					
Foreign Language					

## COMMENTS

### Presentation

Since this compendium project, *Action for a Cleaner Tomorrow* has been redesigned.

### Pedagogy

"Activities are age appropriate and use local community support."

"Includes some innovative activities."

### Teacher Usability

"Includes in-class and take-home activities."

"The curriculum is divided by grade group; some of the lessons in the six-eight section may be too difficult for sixth grade."

"Good resource for new teachers since everything is at their fingertips."

"Excellent resource section for teacher background."

### Specific Content

Developed for use in South Carolina.

"Very well put together - relates the lesson to the 'real world' through some fact provided in the 'Down to Earth' section."

# A-Way with Waste

Washington State Department of Ecology  
Northwest Regional Office  
3190 160<sup>th</sup> Avenue, SE  
Bellevue, WA 98008



No charge. 1990. 574 p.

Quantities are limited. Permission is granted to educators to reproduce lesson plans from CIWMB masters for classroom use, provided credit is given to WSDE.

The third edition of *A-Way with Waste* offers a comprehensive collection of activities written for grades K-12. Eighty-six activities from the second edition are combined with over thirty new activities and presented in three sections: Solid Waste Management (including three subsections: Reduce, Recycle, Dispose); Hazardous Waste; and Waste and Water. Fact sheets and teacher background material introduce each section; a bibliography and glossary are provided at the conclusion.

## REPORT CARD

<b>Overall Grade</b>	<b>B+</b>
<b>General Content</b>	<b>A-</b>
<b>Presentation</b>	<b>B+</b>
<b>Pedagogy</b>	<b>B+</b>
<b>Teacher Usability</b>	<b>A-</b>
<b>Integrated Waste</b>	<b>A-</b>

<b>DISCIPLINE</b>	<b>EMPHASIS</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
Science					
History/Social Science					
Health					
Mathematics					
Visual/Performing Arts					
Language Arts					
Industrial/Vocational Ed.					
Foreign Language					

## COMMENTS

### General Content

*A-Way with Waste* is a huge curriculum that can stand alone or be used to enhance other disciplines."

### Presentation

"The size and binding makes it cumbersome to access."

### Pedagogy

"Activities are action-oriented."  
"Includes extension activities."

### Teacher Usability

"K-12 lessons are included in one big binder that the teacher has to sort through."  
"Resources and bibliography are listed on each lesson."

### Specific Content

"Background information is specific to the state of Washington."

# What a Waste!

Southwest Connecticut Regional  
Recycling Operating Committee  
1410 Honeyspot Road Extension  
Stratford, CT 06497  
(203) 381-9571

\$10.95. 1992. 101 p.

*What a Waste! A Teacher's Resource for Integrating the Solid Waste Crisis in the Classroom* is an elementary level (grades 3-6) curriculum consisting of lessons and activities in one section, and specific strategies to reduce waste in the second section. The fifteen lessons focus on what constitutes waste, roots of the waste problem, the affect of waste on natural resources, and the handling of solid waste. Specific strategies focus on consumer awareness, composting, reducing, reusing, and recycling. Glossary, resources, and suggestions for school recycling programs are also offered.



## REPORT CARD

Overall Grade	B+
General Content	B+
Presentation	B+
Pedagogy	B+
Teacher Usability	A-
Integrated Waste	A-

DISCIPLINE	EMPHASIS	0	1	2	3
Science					
History/Social Science					
Health					
Mathematics					
Visual/Performing Arts					
Language Arts					
Industrial/Vocational Ed.					
Foreign Language					

## COMMENTS

### General Content

"The lessons in *What a Waste* can be taught as a comprehensive unit or as individual presentations."  
"Good resource for classroom activities."  
"Well rounded."

### Presentation

"Clear graphics and valuable classroom handouts."  
"Nice layout and unit organization."

### Pedagogy

"Lessons are well developed and apply student learning to the home front."

### Teacher Usability

"Some material will need to be purchased - could be costly."

### Specific Content

Covers source and waste reduction.  
"Environmental responsibility is underlined throughout."

# Re-Source Your Trash

State of Missouri  
Department of Natural Resources  
Division of Environmental Quality  
P.O. Box 176  
Jefferson City, MO 65102-0176  
(800) 361-4827



No charge. 1999. Page count not yet finalized.

*Re-Source Your Trash: Missouri's Solid Waste Curriculum* examines a variety of solid waste management options and ultimately empowers students in grades 4-8 to develop a personal solid waste plan. Although based upon Missouri facts and practices, the twenty-three lessons are easily adapted to any classroom where they can be integrated within the context of social or environmental issues. Glossary, resources, and appendices are also included.

## REPORT CARD

Overall Grade	B+
General Content	A-
Presentation	B+
Pedagogy	A-
Teacher Usability	B
Integrated Waste	A-

DISCIPLINE	EMPHASIS	0	1	2	3
Science					
History/Social Science					
Health					
Mathematics					
Visual/Performing Arts					
Language Arts					
Industrial/Vocational Ed.					
Foreign Language					

## COMMENTS

### General Content

"Overall a strong curriculum with great appendices including standards, and environmental education guidelines."

### Presentation

Draft edition was reviewed for this project.  
"I liked the font and layout!"

### Pedagogy

"Includes a great lesson on life cycle analysis of consumer products."

### Teacher Usability

References and listings of additional materials are provided.  
"Need to have grade levels noted."

### Specific Content

"Some background information and activities are specific to Missouri."

# Waste in Place

Keep America Beautiful, Inc.  
1010 Washington Blvd.  
Stamford, CT 06901  
(203) 323-8987.



\$40.00. 1997. 132 p.

The sixth edition of *Waste in Place* explores the management of municipal solid waste and prevention of litter. Thirty-three interdisciplinary activities for grades K-6 are organized into seven sections entitled Litter Prevention, How We Manage Garbage, Understanding Waste Management, Waste Reduction, Recycling/Composting, Waste-to-Energy/Landfill, and Enrichment. Parent information, consent letter, article reprints, and glossary of terms are also provided.

## REPORT CARD

Overall Grade	B+
General Content	B+
Presentation	B+
Pedagogy	B+
Teacher Usability	B+
Integrated Waste	B+

DISCIPLINE	EMPHASIS	0	1	2	3
Science					
History/Social Science					
Health					
Mathematics					
Visual/Performing Arts					
Language Arts					
Industrial/Vocational Ed.					
Foreign Language					

## COMMENTS

### General Content

"A good overview. Lots of information is provided."

### Presentation

"The layout is clear, the graphics good."

### Pedagogy

"At the 4 - 6 level, many activities lack depth and challenge."

"Enrichment activities are provided at the end of each lesson."

### Teacher Usability

"*Waste in Place* is easy to use. Nice tabulation that makes exploring easier."

"Subject chart is useful. Good enrichment activities."

"Attendance at the workshop would make this [even] easier to use."

### Specific Content

"A strong focus on litter prevention."

# The No-Waste Anthology

Environmental Education Coordinator  
California Department of Toxic Substances Control  
P.O. Box 806  
Sacramento, CA 95812  
(916) 324-3614



No charge to California educators. 1991. 320 p.

*The No-Waste Anthology, a Teacher's Guide to Environmental Activities K-12* is a compilation of material derived from other sources, reorganized into a single document. Seventy-six activities are organized into three sections: Natural Resources and Pollution, Solid Waste, and Hazardous Waste. Teacher background information, waste glossary, and an extensive cross-correlation of activities are also provided.

## REPORT CARD

Overall Grade	B+
General Content	B+
Presentation	B+
Pedagogy	B+
Teacher Usability	B+
Integrated Waste	B+

DISCIPLINE	EMPHASIS	0	1	2	3
Science					
History/Social Science					
Health					
Mathematics					
Visual/Performing Arts					
Language Arts					
Industrial/Vocational Ed.					
Foreign Language					

## COMMENTS

### General Content

"Provides a good overall view and lots of activities."

"This is a collection of some of the better activities [from an array of resources] compiled into one book."

### Presentation

"The size and binding makes it cumbersome to access."

### Pedagogy

"Heavy on discussions not experiences."

"While many of the activities are targeted for higher grade levels, they could be adjusted for 4-6."

### Teacher Usability

"Lessons are well indexed by subject, topic area, and grade level."

"The grade and subject indices would be more useful with page references."

"Very teacher friendly!"

# Counting On People

Zero Population Growth, Inc.  
1400 16<sup>th</sup> Street, NW, Suite 320  
Washington, DC 20036  
(202) 332-2200



\$19.95. 1994. 147 p.

*Counting on People: Elementary Population and Environmental Activities* offers thirty-two lesson plans for grades 1-6. Global population dynamics and environmental issues, including limits to growth, natural resource use, and waste production are introduced through background information, songs, poetry, stories, and a variety of multidisciplinary activities. Natural resource consumption and waste production are addressed primarily in sections six and seven, representing approximately one-third of the book's activities.

## REPORT CARD

Overall Grade	B
General Content	B+
Presentation	B+
Pedagogy	B+
Teacher Usability	B+
Integrated Waste	B

DISCIPLINE	EMPHASIS	0	1	2	3
Science					
History/Social Science					
Health					
Mathematics					
Visual/Performing Arts					
Language Arts					
Industrial/Vocational Ed.					
Physical Education					

## COMMENTS

### General Content

*Counting On People* offers well designed activities that focus on zero population growth; it does not, however, have a clearly defined scope and sequence specific to integrated waste management issues."

### Presentation

"Lessons are well laid out and easy to follow. The book has a brief, but detailed lesson summary at the front."

### Pedagogy

"Some very good activities use math and language arts skills."  
Action component in the lessons needs to be further developed.

### Teacher Usability

"Very easy to implement!"

### Specific Content

Five of thirty-two lessons focus on integrated waste management issues.



# NatureScope: Pollution Problems and Solutions

McGraw-Hill, Inc.  
Customer Services  
P.O. Box 545  
Blacklick, OH 43004-0545  
(800) 722-4726



\$12.95. 1998. 110 p.

Created by the National Wildlife Federation for grades K-8, *NatureScope: Pollution Problems and Solutions* blends science, language arts, social science, and art to generate an understanding of the natural world and the environmental issues we face within it. Teacher background sections are followed by creative activities and ready-to-copy activity sheets for five topical areas: Pollution, Trash and Toxics, Up in the Air, Troubled Waters, and Choices and Challenges. Glossary, list of pollution laws, and an expanded, updated resource section are also included.

## REPORT CARD

Overall Grade	B
General Content	B
Presentation	B
Pedagogy	B-
Teacher Usability	B-
Integrated Waste	B

DISCIPLINE	EMPHASIS	0	1	2	3
Science					
History/Social Science					
Health					
Mathematics					
Visual/Performing Arts					
Language Arts					
Industrial/Vocational Ed.					
Foreign Language					

## COMMENTS

### General Content

"This is a teacher resource that offers good handouts and activities. The performing art pieces are especially valuable for classroom productions, as are the case studies of people who have made a difference."

### Presentation

"The materials designed to be copied are very sharp."

"Engaging layout."

### Pedagogy

"Varied perspectives on the issues are noted."

### Teacher Usability

"This is teacher friendly - very easy to read and apply."

The amount of time required for an activity is not noted.

### Specific Content

"This is primarily a pollution-oriented curriculum with a broader focus (solid and hazardous waste, air and water pollution) than that of integrated waste management alone."

# BFI Mobius Curriculum: Understanding the Waste Cycle

Browning-Ferris Industries, Inc.  
The Mobius Program  
P.O. Box 3151  
Houston, TX 77253-9984  
(281) 870-8100



No charge. 1995. 135 p.  
Quantities are limited. Permission is granted to educators to reproduce lesson plans from CIWMB masters for classroom use, provided credit is given to BFI.

The third edition of the *BFI Mobius Curriculum* introduces students in grades 4-6 to solid waste management systems and disposal solutions, including the application of reducing, reusing, and recycling on a personal and community level. Lessons explore recycling, composting, waste-to-energy (incineration), and landfilling, while examining past and current issues. Glossary, bibliography, worksheet packet, and additional resources are also provided.

## REPORT CARD

Overall Grade	B
General Content	B
Presentation	B
Pedagogy	B+
Teacher Usability	B
Integrated Waste	B+

DISCIPLINE	EMPHASIS	0	1	2	3
Science					
History/Social Science					
Health					
Mathematics					
Visual/Performing Arts					
Language Arts					
Industrial/Vocational Ed.					
Foreign Language					

## COMMENTS

### General Content

"*Mobius* provides a set of activities based on different solid waste topics."

### Presentation

"Usable format - graphics make it easy and enjoyable to use. The activity worksheets are motivational for the students and nicely presented."

### Pedagogy

Focus needs more breadth and depth.  
"There are many worthwhile, age appropriate activities and demonstrations. Students have many opportunities to develop their own environmental awareness through observation, measurements, analysis, and interpretation without being overwhelmed by excessive information."

### Teacher Usability

"Very teacher friendly."

### Specific Content

Focuses on understanding the waste cycle.

# Think Earth

Educational Development Specialists  
5505 East Carson Street, Suite 250  
Lakewood, CA 90713  
(562) 420-6814



\$50.00 per grade-level unit. 1998. Packaged kit.

*Think Earth* is a complete instructional K-6 package that features a teacher guide, story cards, posters, practice cards, reproducible masters, and a seven-minute video. Each grade-level set of activities focuses on the conservation of natural resources and reduction of waste and pollution. The grade four unit specifically addresses waste reduction, the grade five unit addresses pollution control, and the grade six unit addresses natural resources.

## REPORT CARD

Overall Grade	B
General Content	B
Presentation	B
Pedagogy	B
Teacher Usability	B
Integrated Waste	B

DISCIPLINE	EMPHASIS	0	1	2	3
Science					
History/Social Science					
Health					
Mathematics					
Visual/Performing Arts					
Language Arts					
Industrial/Vocational Ed.					
Foreign Language					

## COMMENTS

### General Content

"Each *Think Earth* unit is a grade-specific, topic specific stand-alone curriculum that is attractive and motivational for students."  
"To experience a comprehensive curriculum, students would need to have used *Think Earth* materials at each grade level K-6."

### Presentation

"Very well designed, grade appropriate materials."  
Colorful posters are included.  
"Good use of multicultural imagery."

### Pedagogy

"Students involve their families in their learning opportunities."  
"Not really a curriculum - lots of sponge activities that are based on paper and pencil."

### Teacher Usability

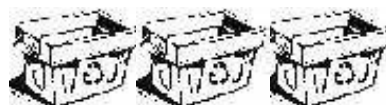
"Good for use with Earth Week activities."  
"Nice literature appendix."

### Specific Content

"Only the fourth grade unit focuses specifically on waste reduction."

# Garbage Reincarnation

Garbage Reincarnation, Inc.  
Sonoma County Community Recycling  
P.O. Box 1375  
Santa Rosa, CA 95402  
(707) 584-8666



\$8.95. No date. 51 p.

*Garbage Reincarnation, Interdisciplinary Approach to Materials Conservation and Recycling* is a packet of K-6 level lessons related to recycling and resource conservation. Twenty activities are sequentially arranged, beginning with a definition of waste, a discussion of methods used to handle waste, and concluding with strategies to establish community recycling programs.

## REPORT CARD

Overall Grade	B
General Content	B
Presentation	B
Pedagogy	B
Teacher Usability	B
Integrated Waste	B+

DISCIPLINE	EMPHASIS	0	1	2	3
Science					
History/Social Science					
Health					
Mathematics					
Visual/Performing Arts					
Language Arts					
Industrial/Vocational Ed.					
Foreign Language					

## COMMENTS

### General Content

"Offers a wide variety of activities."  
"This is a packet of activities related to recycling and resource conservation."

### Presentation

"The information is difficult to access and the graphics sometimes interfere with understanding."

### Pedagogy

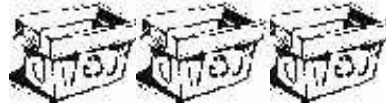
"There is a strong personal - school - home- and community connection."  
"Environmental behaviors are modelled well."

### Teacher Usability

"Key words, time frame, and disciplines are listed which would help with lesson planning."  
"Too wordy."  
Statistics need to be updated.

# Activities Guide to Solid Waste and Recycling

Sacramento County Waste Management and  
Recycling Division  
9850 Goethe Road  
Sacramento, CA 95827  
(916) 875-6789



No charge to educators in the unincorporated Sacramento area. 1995. 54 p.  
Also available to other California educators upon special request.

Designed for grades 2-6, the *Activities Guide to Solid Waste and Recycling* offers nine lessons to create awareness among students of how their daily action affects the environment. Students apply map reading skills to locate landfills, create a mini landfill in their classroom, use a calculator to determine how much garbage is produced in a day, and conduct a recycling drive. Although the curriculum uses regional (Sacramento) data in the background information, this information can be modified for application elsewhere. One activity is based on a field trip to the Keifer Landfill in Sacramento County.

## REPORT CARD

Overall Grade	B
General Content	B
Presentation	B
Pedagogy	B
Teacher Usability	B+
Integrated Waste	B

DISCIPLINE	EMPHASIS	0	1	2	3
Science					
History/Social Science					
Health					
Mathematics					
Visual/Performing Arts					
Language Arts					
Industrial/Vocational Ed.					
Foreign Language					

## COMMENTS

### General Content

"This is a collection of activities that can be used to supplement other curricula by presenting a solid waste and recycling perspective."

### Presentation

"Clear layout - easy to follow."

### Pedagogy

"Activities can be independently used since they do not build upon one another."

"Needs more depth."

### Teacher Usability

"Offers good suggestions for supplementary activities including field trips and projects."

"Provides clear directions."

### Specific Content

"Many of the student community involvement opportunities are based in Sacramento County."

# Living Lightly in the City

Schlitz Audubon Center  
1111 East Brown Deer Road  
Milwaukee, WI 53217  
(414) 352-2880



\$24.00. 1992 (second edition). 200 p.

The *Living Lightly* series is comprised of four volumes of environmental education material for grades K -12. For the upper elementary grades, *Living Lightly in the City, Volume II* offers activities that help students understand their relationship with the natural world and apply this knowledge when making consumer choices and life-style decisions. Lessons are organized within eight units: Checking Out the Neighborhood, Natural Neighbors, Back to Basics, Native American Perspectives, Less Is More, Going Places, Where Does Water Go? and Enough for Everyone?

## REPORT CARD

Overall Grade	B
General Content	B+
Presentation	B
Pedagogy	B
Teacher Usability	B+
Integrated Waste	B-

DISCIPLINE	EMPHASIS	0	1	2	3
Science					
History/Social Science					
Health					
Mathematics					
Visual/Performing Arts					
Language Arts					
Industrial/Vocational Ed.					
Foreign Language					

## COMMENTS

### General Content

*Living Lightly* is a broad environmental education curriculum.  
"Activities appear easy to implement and the student sheets are well done."

### Presentation

"Easy format to use."

### Pedagogy

"Most of the activities rely on observations and use of pencil and paper."

### Teacher Usability

"A general overview is given at the beginning of each unit. The index by topic is very useful. The loose-leaf arrangement makes it easy to copy pages for the classroom."

### Specific Content

"Only a few lessons relate to the focus of this compendium."

# Rethinking Recycling

Oregon Department of Environmental Quality  
811 SW Sixth Avenue  
Portland, OR 97217  
(503) 229-5913



\$33.00 for entire curriculum and \$6.00 for video (no charge to Oregon educators).  
1993. Packaged folder of materials.

*Rethinking Recycling, an Oregon Waste Reduction Curriculum* is a comprehensive package consisting of four grade-group levels of Classroom Activity Packets (K-2, 3-5, 6-8, and 9-12), a Teacher Resource Guide (63 p.), recycling and waste reduction booklet (18 p.), and video, "The Recycle Lifecycle of Glass." The Teacher Resource Guide provides background information, fact sheets, reprints of articles, suggested instructional methods, and lists of additional resources. At the 3-5 level, the Classroom Activity Packet consists of twelve lessons and related handouts designed to make students understand waste management options and take action to reduce waste.

## REPORT CARD

Overall Grade	B-
General Content	B
Presentation	B
Pedagogy	B-
Teacher Usability	B
Integrated Waste	B

DISCIPLINE	EMPHASIS	0	1	2	3
Science					
History/Social Science					
Health					
Mathematics					
Visual/Performing Arts					
Language Arts					
Industrial/Vocational Ed.					
Foreign Language					

## COMMENTS

### General Content

*Rethinking Recycling* offers twelve activities that make students aware of solid waste management issues."

### Presentation

"Packaging is not well organized (loose, unnumbered pages)."

### Pedagogy

"Extension activities (long-term and short-term projects) are suggested for each lesson."

"Limited opportunity to promote active learning and higher level thinking."

### Teacher Usability

"Very teacher friendly."

"Includes guidelines for implementing a waste reduction program - very precise and easy to follow."

"Extensive list of resources."

### Specific Content

Specifically designed for the state of Oregon although useful with some modification elsewhere.

# Let's Reduce and Recycle: A Curriculum for Solid Waste Awareness

United States Environmental Protection Agency  
National Center for Environmental Publications and Information  
P.O. Box 42419  
Cincinnati, OH 45242  
(800) 424-9346



No charge. 1990. 144 p.

*Let's Reduce and Recycle* offers a series of activities focusing on the impact of garbage on the environment and the application of waste prevention and recycling techniques. Divided into two sections, grades K-6 and 7-12, each contains five units that address the following concepts: What is Waste?, Where Does Waste Go?, How Does Waste Affect Our Resources?, How Can We Produce Less Waste?, and What Can We Do About Waste? Additional features include a glossary, a script to "Throwaway Three," list of state solid waste agencies, and educational resources.

## REPORT CARD

Overall Grade	B-
General Content	B
Presentation	B
Pedagogy	B-
Teacher Usability	B-
Integrated Waste	B

DISCIPLINE	EMPHASIS	0	1	2	3
Science					
History/Social Science					
Health					
Mathematics					
Visual/Performing Arts					
Language Arts					
Industrial/Vocational Ed.					
Foreign Language					

## COMMENTS

### General Content

"*Let's Reduce and Recycle* is a collection of activities designed to give students an awareness of waste management issues."  
"Presents a strong community focus as the context."

### Presentation

"Good handouts."  
"Great clip art section."

### Pedagogy

"Lacks a clearly defined scope and sequence."  
"Many activities are too young for the 4-6 level, although some may be adaptable for 4th grade."

### Teacher Usability

"Offers an extensive list of resources."  
"Vocabulary and objectives are highlighted."



# Air to Earth Teacher's Resource Kit

Nike, Inc.  
Reuse-A-Shoe/Air to Earth  
c/o Eco Educators  
1335 Dublin Road, #216 C  
Columbus, OH 43214  
(614) 487-9522



No charge to educators who participate in a workshop. 1998. 82 p. plus kit.

Consisting of teacher's guide, video, poster, examples of materials found in athletic shoes, an athletic shoe sliced for recycling, and Nike Grind (ground up athletic shoes), the *Air to Earth Teacher's Resource Kit* allows students in grades 4-7 to examine the life-cycle of athletic shoes to begin understanding the concepts of conservation and sustainability. Ten lesson plans explore the design, development, retailing, and downcycling (final disposition) of a single consumer product, culminating with an environmental action project such as participating in the Reuse-A-Shoe collections program.

## REPORT CARD

Overall Grade	B-
General Content	B
Presentation	B-
Pedagogy	B
Teacher Usability	B
Integrated Waste	B-

DISCIPLINE	EMPHASIS	0	1	2	3
Science		_____			
History/Social Science		_____			
Health		—			
Mathematics		_____			
Visual/Performing Arts		_____			
Language Arts		_____			
Industrial/Vocational Ed.		—			
Foreign Language		—			

## COMMENTS

### General Content

"This is not meant to be a stand alone curriculum. It takes a single product [through its entire life cycle] from the use of natural resources, manufacturing of the product, its use, and its disposal or recycling." "A good supplement to other curricula and motivational to students."

### Presentation

"Nice booklet; graphics are well done."

### Pedagogy

"Has a promotional [corporate advertising] slant."

"This would be of interest to students - applicable to real-life decision-making."

"A great module for 'closing the loop'."

"Correlated to Project 2061: Benchmarks for Science Literacy."

### Teacher Usability

"Teachers and students will enjoy the 'shoe box' of goodies."

Caution should be raised, however, regarding the blatant promotion of Nike products.

"Resource guide lists websites."

# Revise, Recycle, Recover

Frost Valley YMCA  
HC 55, Frost Valley Road  
Claryville, NY 12725  
(914) 985-2291



\$9.95. 1991. 70 p.

*Revise, Recycle, Recover, Realizing Our Resources* presents a series of lesson plans designed for the upper elementary through secondary level. Three general concepts of solid waste management are reinforced: (1) the revision of thought and consumer behavior, (2) the recycling of material to conserve energy, natural resources, and space, and (3) the recovery of resources as an alternative to sanitary landfills. Thirty-nine lesson plans are followed by reference sheets, glossary, and listing of resources and agencies.

## REPORT CARD

Overall Grade	B-
General Content	B-
Presentation	B-
Pedagogy	B
Teacher Usability	B-
Integrated Waste	B

DISCIPLINE	EMPHASIS	0	1	2	3
Science		—			
History/Social Science		—			
Health		—			
Mathematics		—			
Visual/Performing Arts		—			
Language Arts		—			
Industrial/Vocational Ed.		—			
Foreign Language		—			

## COMMENTS

### General Content

"This is a community oriented program with a commitment to action projects."

### Presentation

"Illustrations depict a child in a wheelchair as an active participant."

### Pedagogy

"Lessons seem more appropriate for outdoor education rather than indoor academics."  
"Many of the activities are designed for older students."

### Teacher Usability

"Easy to use - has a list of materials needed at the beginning of each lesson."

# Planet Patrol

Procter & Gamble  
Educational Services  
P.O. Box 599  
Cincinnati, OH 45201



No charge. 1997. 15 p. plus handouts

*Planet Patrol, An Environmental Unit of Solid Waste Solutions* presents background information and four lessons focused primarily on the integrated management of solid waste through sanitary landfilling, source reduction, recycling and composting, and waste combustion (waste-to-energy incineration). The multidisciplinary lessons are designed for use in grades 4-6 and are designed to promote environmentally responsible behaviors. Parent take-home sheets and masters for overhead visuals are also provided.

## REPORT CARD

Overall Grade	B-
General Content	B-
Presentation	B-
Pedagogy	B-
Teacher Usability	B
Integrated Waste	B-

DISCIPLINE	EMPHASIS	0	1	2	3
Science					
History/Social Science					
Health					
Mathematics					
Visual/Performing Arts					
Language Arts					
Industrial/Vocational Ed.					
Foreign Language					

## COMMENTS

### General Content

*Planet Patrol* is an activity packet consisting of four lessons.

"Offers good supplemental lessons."

"A good introduction to solid waste - could be used as a supplement to a curriculum."

### Presentation

"The wall chart (poster) shows items being taken for recycling or made from recycled material."

"Industry perspective [self-promotion of P&G products] is presented."

### Pedagogy

"Student materials need improvement."

"The suggested extensions potentially add a lot to the activities."

### Teacher Usability

"Easy for teachers to use."

"Teacher booklet is clear and concise."

### Specific Content

"Focuses on recycling, composting, incineration, and landfilling."

# Reduce, Reuse, Recycle, A Waste Reduction Activity Kit

Eco-Cycle  
P.O. Box 19006  
5030 Pearl  
Boulder, CO 80308  
(303) 444-6634



\$250.00 plus \$15.00 shipping. 1998. 67 p. plus kit.

Packed in an eighteen gallon container, *Reduce, Reuse, Recycle, A Waste Reduction Activity Kit* features two scripted slide shows, curriculum guide, visual aids, and several "grab bags" and boxes of material illustrating various stages of precycling, recycling, and reuse. Designed for grades 4-8, the kit presents five days' worth of hands-on activities that enable students to examine recycled products, understand reprocessing steps at factories, learn of the history of trash, experiment with a modern landfill, and research the environmental benefits of recycling.

## REPORT CARD

Overall Grade	B-
General Content	B-
Presentation	B-
Pedagogy	B-
Teacher Usability	B
Integrated Waste	B-

DISCIPLINE	EMPHASIS	0	1	2	3
Science					
History/Social Science					
Health					
Mathematics					
Visual/Performing Arts					
Language Arts					
Industrial/Vocational Ed.					
Foreign Language					

## COMMENTS

### General Content

"This is a fun and interesting teacher resource kit that supplies everything you need for a five-hour one week recycling/reuse unit."

"Offers five lessons on different waste management issues."

### Pedagogy

"The samples of recycled materials help to support many of the integrated waste management concepts."

### Teacher Usability

The kit comes with all necessary materials. "The \$250.00 cost might stop some people, but the hours saved on preparation would compensate for it."

"Minimal prep time is needed."

"Requires a slide projector."

### Specific Content

The kit's focus is on waste reduction, consumerism, and the three R's.